

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

**In Re: Patent Application of Charles Eldering et al.**

Conf. No.: 8882 : Group Art Unit: 2424  
Appln. No.: 09/712,790 : Examiner: SHELEHEDA, James R.  
Filing Date: 14 NOVEMBER 2000 : Attorney Docket No.: T721-10  
Title: Queue Based Advertisement Scheduling and Sales

**APPELLANTS' BRIEF IN SUPPORT OF THE APPEAL TO THE BOARD**  
**OF PATENT APPEALS AND INTERFERENCES**

In response to the Final Rejection dated August 27, 2008, and the Notice of Pre-Appeal Brief Review dated March 16, 2009, and further to the Notice of Appeal and Request for Pre-Appeal Brief Conference filed on January 27, 2009, Applicants hereby submit an Appeal Brief in accordance with 37 C.F.R. §41.37 for the above-referenced application.

This paper is being timely submitted by virtue of the accompanying Petition for Extension of Time (two-months), which extends the period available for reply through and including June 16, 2009.

**(A) REAL PARTY IN INTEREST**

The real party in interest is Prime Research Alliance E, Inc., the Assignee of record, which is a wholly owned subsidiary of a privately-owned, non-publicly traded company.

**(B) RELATED APPEALS AND INTERFERENCES**

There are no prior or pending appeals, judicial proceedings or interferences known to appellant, the appellant's legal representative, or assignee which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in this appeal.

**(C)    STATUS OF CLAIMS**

- Claims 11, 19 – 59, 61, 66 – 67 are canceled.
- Claims 1-10, 12-18, 60, 62 – 65 and 68 – 105 are pending, rejected and are appealed.

**(D) STATUS OF AMENDMENTS**

No amendment has been filed subsequent to the final rejection.

**(E) SUMMARY OF CLAIMED SUBJECT MATTER**

The currently pending independent claims in this application are claims 1, 60, 79 and 97. A concise explanation of each independent claim, with reference to the specification follows below.

Independent claim 1 recites:

A method of selectively inserting advertisements into a programming stream at different receiving nodes of a communications network, said method comprising:

- (a) transmitting the programming stream from a central location to one or more receiving nodes;
- (b) storing advertisements at a node of said network, each advertisement being previously matched to one or more subscribers associated with one of said receiving nodes;
- (c) storing one or more queues, each of said queues corresponding to a subset of said receiving nodes, said queues comprising an ordered list of advertisement resource locators (ARLs) and a plurality of queue slots, each of said ARLs comprising data disclosing a location of a corresponding advertisement;
- (d) selling specific queue slots, wherein the sold specific queue slots at least partially determine the order of the ARLs in said ordered list;
- (e) determining, at each of said receiving nodes, one or more intervals in said programming stream within which advertisements may be inserted;
- (f) responsive to said determination, retrieving from said queue corresponding to said receiving node one of said ARLs in accordance with said ordered list; and
- (g) inserting said advertisement corresponding to said retrieved ARL into said programming stream at said receiving node within said determined one or more intervals.

With respect to independent claim 1, the claimed subject matter relates to a method of inserting advertisements into a programming stream at different receiving nodes of a communications network (see for example, Figs. 1 and 4, and page 3, line 10 – page 4, line 9, of the specification). The programming stream is transmitted from a central location to one or more receiving nodes (see for example, Figs. 1 and 4, and page 6, line 8 – page 8, line 16 of the specification). Advertisements are stored at a node of the network (see for example, page 3, lines 10 – 19; and page 13, lines 7 – 13 of the specification), with each advertisement being previously matched to one or more subscribers associated with one of the receiving nodes (see for example, Fig. 1 and page 3, lines 10 – 19; page 4, lines 10 – 21; and page 18, line 29 – page 19, line 18 of the specification). One or more queues corresponding to a subset of said receiving nodes is stored (see for example, page 4, lines 10 – 21; page 12, line 24 – page 13, line 19; and page 18, line 29 – page 20, line 8 of the specification). The queues comprise an ordered list of advertisement resource locators (ARLs) and a plurality of queue slots, with each of said ARLs comprising data disclosing a location of a corresponding advertisement (see for example, Figs. 3, 5A and 5B and page 12, line 24 – page 13, line 19; and page 25, lines 5 – 22 of the specification). Specific queue slots are sold, such that the sold specific queue slots at least partially determine the order of the ARLs in the ordered list (see for example, Fig. 4 and page 4, line 10 – 16; page 13, line 14 – page 14, line 15; page 18, line 19 – page 19, line 17; page 23, line 5 – page 24, line 6; and page 25, lines 5 – 22 of the specification). At each of the receiving nodes, one or more intervals in the programming stream is determined within which advertisements may be inserted (see for example, Fig. 4 and page 11, line 19 – page 12, line 23; and page 13, lines 14 – 29 of the specification). In response to this determination, one of the ARLs is retrieved from the queue in accordance with the ordered list (see for example, page 18, lines 19 – 28; and page 23, line 5 – page 24, line 6 of the specification). The advertisement corresponding to the retrieved ARL is inserted into the programming stream at the receiving node within the interval(s) (see for example, page 3, line 10 – page 4, line 9; page 13, lines 14 – 29; and page 23, line 5 – page 24, line 34 of the specification).

Independent claim 60 recites:

A method of inserting advertisements into a programming stream in a communications network, the method comprising:

- (a) transmitting said programming stream from a central location to one or more receiving nodes;
- (b) storing one or more queues at a node of the network, each queue associated with one or more subscribers, each of the queues comprising an ordered list of advertisements and a plurality of queue slots, each advertisement being previously matched to one or more of the subscribers;
- (c) identifying a repetition rate specified by an advertiser, wherein the repetition rate represents spacing between queue slots relative to previous queue slots in the queue, and selling specific queue slots to the advertiser based at least partially on the specified repetition rate, wherein the sold specific queue slots at least partially determine the ordered list of the advertisements within the queues;
- (d) detecting one or more intervals in said programming stream within which advertisements may be inserted; and
- (e) inserting advertisements from the queues into said programming stream within said detected one or more intervals, the advertisements being inserted in accordance with the ordered list.

The subject matter of independent claim 60 is similar to that of independent claim 1 described above. In claim 60, a similar process is performed. However, a repetition rate is specified by the advertiser (see for example, Figs. 5A and 5B and page 25, line 5 – page 26, line 14 of the specification) that represents spacing between queue slots relative to previous queue slots in the queue for a plurality of advertisers (see for example, Figs. 5A and 5B and page 25, line 5 – page 26, line 14 of the specification).

Independent claim 79 recites:

A method of inserting advertisements into a programming stream in a communications network, the method comprising:



- (a) transmitting said programming stream from a central location to one or more receiving nodes;
- (b) storing said programming stream at the one or more receiving nodes;
- (c) storing one or more queues at a node of the network, each queue associated with one or more subscribers, each of the queues comprising an ordered list of advertisements and a plurality of queue slots, each advertisement being previously matched to one or more of the subscribers;
- (d) selling specific queue slots, wherein the sold specific queue slots at least partially determine the ordered list of the advertisements within the queues;
- (e) retrieving the stored programming stream from the one or more receiving nodes to create a retrieved programming stream;
- (f) detecting one or more intervals in said retrieved programming stream within which advertisements may be inserted; and
- (g) inserting advertisements from the queues into said retrieved programming stream within said detected one or more intervals, the advertisements being inserted in accordance with the ordered list.

The subject matter of independent claim 79 is similar to that of independent claim 1 described above. In claim 79, a similar process is performed.

Independent claim 97 recites:

A method of inserting advertisements into a programming stream in a communications network, the method comprising:

- (a) transmitting said programming stream from a central location to one or more receiving nodes;
- (b) storing one or more queues at a node of the network, each queue associated with one or more subscribers and comprising a plurality of queue locations forming an ordered list of advertisements, each advertisement being previously matched to one or more of the subscribers;

- (c) selling one or more specific individual queue locations, wherein the sold specific individual queue locations at least partially determine the ordered list of the advertisements within the queues;
- (d) detecting one or more intervals in said programming stream within which advertisements may be inserted; and
- (e) inserting advertisements from the queues into said programming stream within said detected one or more intervals, the advertisements being inserted in accordance with the ordered list.

The subject matter of independent claim 97 is similar to that of independent claim 1 described above. In claim 97, a similar process is performed; however, “queue locations” is recited (see for example, Figs. 3, 5A and 5B and page 12, line 24 – page 13, line 19; and page 25, lines 5 – 22 of the specification).

**(F) GROUND OF REJECTION TO BE REVIEWED ON APPEAL**

The following grounds of rejection are presented for review in this appeal:

- Whether claims 1, 2, 7, 8, 10, 12 – 18, 60, 62 – 65, and 68 – 105 and are unpatentable under 35 U.S.C. §103(a) over U.S. Patent No. 6,698,020 to Zigmond *et al.* (“Zigmond”) in view of U.S. Patent Application Publication No. 2003/0200138 to Doherty (“Doherty”).
- Whether claims 3 – 6 and 9 are unpatentable under 35 U.S.C. §103(a) over Zigmond in view of Doherty and further in view of U.S. Patent No. 6,505,169 to Bhagavath *et al.*

**(G) ARGUMENTS**

(1) Rejection under 35 U.S.C. §103(a) over Zigmond in view of Doherty

(a) Claims 1, 2, 7, 8, 10, 12 – 18, 73 – 75, 79 – 94, and 96 – 103

The Examiner has not established a *prima facie* case of obviousness to support the rejection of claims 1, 2, 7, 8, 10, 12 – 18, 73 – 75, 79 – 94, and 96 – 103 because (i) all features of the claims are not taught by the proposed combination; and (ii) the combination of references proposed by the Examiner is improper. In addition, (iii) assuming *arguendo* that the Examiner has established a *prima facie* case of obviousness, Applicants have submitted rebuttal evidence in the form of Declarations indicative of nonobviousness under 37 C.F.R. §1.132 that should be considered.

**i. The Combination of Zigmond and Doherty Does Not Teach or Suggest All Claim Elements.**

When making a rejection under 35 U.S.C. § 103, the prior art references, when combined, must teach or suggest all of the claimed elements. *Muniauction, Inc. v. Thomson Corp.*, 532 F.3d 1318, 1324 (Fed. Cir. 2008); *see* MPEP 2143.03. Applicants respectfully submit that the combination of Zigmond and Doherty, even if proper, fails to teach or suggest all of the features of the independent claims.

Applicants disagree with the Examiner's continued assertion at page 5 of the Final Office Action that Applicants have argued against the obviousness rejection by attacking the references individually. Rather, Applicants have pointed out that the references do not teach or suggest certain features as contended by the Examiner, and, therefore, cannot possibly teach or suggest such features when combined as proposed by the Examiner.

Zigmond teaches a system and method for selecting and inserting advertisements into a video programming feed. In Zigmond, ads are delivered to the viewer by being multiplexed with the programming feed, transmitted over a separate network or periodically downloaded to the insertion device. “Household data”, including viewer, system and/or demographic information, characterizes the viewer, and is referenced to determine which ads should be selected and inserted into the programming feed. The programming feed is interrupted by an “ad insertion device” that inserts the selected ad. Zigmond’s system has the ability to select ads on demand.

Doherty teaches a method of scheduling “items of information” (including advertisements) intended for display to localized audiences. In Doherty, each item is assigned a priority according to when it would be most useful to be displayed. The items of information are then scheduled for presentation to the viewer based on their priority. The most suitable ads are determined by calculating priority as a function of time under the “current conditions”, such as location, user profile, time remaining for display, etc. The current schedule of items is cleared, for example, when user interaction is detected or other triggering events (such as the beginning of the display period) occur.

***Zigmond Does Not Teach or Suggest “selling specific slots”***

In the Final Office Action the Examiner insists that Zigmond teaches “selling specific queue slots” or “queue locations”, citing both column 8, lines 22 – 29 and column 14, lines 17 – 21. Final Office Action at 9. The Examiner argues that an advertiser’s ability to make a selection relative to another ad, “qualifies as a ‘specific’ spot as it is an explicit declaration on the desired display.” Final Office Action at 2.

Although advertisers in Zigmond have the ability to influence when their ads are displayed, it is Zigmond’s system itself – not the advertisers – that determines which ad is selected for display. That is, just because an advertiser interacting with Zigmond’s system submits criteria that its ad be displayed after (or near) a competitor’s ad, there is no guarantee that the advertiser’s ad will be selected as desired. Even if an advertiser in

Zigmond wants to select a particular ad relative to the content of the previously displayed ad (or another advertiser) such disclosure does not mean that the advertiser in Zigmond ***purchases a specific slot or location***. Rather, Zigmond's system will make an appropriate ad selection ***based on the available ads and criteria***. This hardly constitutes the ability of an advertiser to purchase a "specific slot" as contended by the Examiner. Moreover, an Advertiser's "declaration" – explicit or not – on the desired display of their advertisement is irrelevant with respect to the actual purchase of a "specific slot" as claimed.

Furthermore, it would be impossible for an advertiser in Zigmond to purchase a ***specific slot*** in Zigmond, since Zigmond is premised on the application of ad selection criteria to determine which advertisement is displayed. Again, it is Zigmond's system, and not the advertiser, that makes the determination as to which advertisement is inserted at which particular point – based on the available ad selection criteria. Therefore, the ability to purchase specific slots for advertisements is directly contrary to the teachings of Zigmond's ad insertion device and use of ad selection criteria. At page 3 of the Final Office Action the Examiner argues that Zigmond necessarily designates a particular ad for a particular slot because Zigmond, "is limited to the particular ads and ad criteria that are available." This argument is misleading and disingenuous. Into which slot a particular ad may be placed **as a result of ad selection criteria** is irrelevant with respect to the current claims. The fact remains that Zigmond's system does not permit the selection or sale of a "specific queue slot". Additionally, the mere teaching of a "contractual relationship" in Zigmond (i.e., that an advertiser has paid for ad display) has no bearing on whether a particular slot is sold or not. In fact, the notion that the advertisers in Zigmond purchase a certain number of display instances or contract for display during a certain program is indicative of the advertiser not being able to purchase a specific slot, but rather, Zigmond's system making the determination as to which advertisement is inserted at which particular point.

Therefore, the ability to purchase specific slots for advertisements is directly contrary to the teachings of the ad insertion device and ad selection criteria on which Zigmond is premised. Accordingly, when combined with Doherty, there cannot possibly

any teaching of “selling specific queue slots” or “queue locations”, as recited in Applicants’ independent claims.

***Doherty Does Not Teach Selling Specific Slots in a Queue***

The Examiner relies on Doherty for the proposition that, “locations in the ordered list are sold to advertisers...and wherein the sold locations at least partially determine the order of the ARLs in said ordered list,” citing paragraphs 40, 46, 48 and 49 of Doherty. Final Office Action at 4, 10 – 11. The Examiner thus contends that, by an advertiser in Doherty paying to have an ad inserted in the queue, the advertiser has therefore purchased space generally in the queue.

However, these portions of Doherty relied on by the Examiner simply teach that an advertiser has the ability to influence when an advertisement is displayed, by altering the “advertising premium”, which in turn affects the ad “priority profile”. Thus, Doherty certainly does not teach or suggest selling **specific queue slots** to advertisers. In traditional ad display schemes (such as Doherty), it is the opportunity to have one’s advertisement displayed to consumers that is sold – not the sale of specific queue slots or locations. Accordingly, Doherty does not teach or suggest the sale of specific queue slots or locations, as argued by the Examiner.

***Proposed Combination Does Not Teach or Suggest “selling specific queue slots”***

In view of the foregoing, the combination of Zigmond and Doherty, even if proper, fails to teach or suggest all of features of independent claim 1. Specifically, the combination of Zigmond and Doherty does not teach or suggest “selling specific queue slots, wherein the sold specific queue slots at least partially determine the order of the ARLs in said ordered list.” As discussed above, none of the applied references teaches or suggests the concept of selling specific slots generally or in a queue. Thus, the combination of Zigmond and Doherty is also lacking at least this feature.

Even if Doherty’s schedule is incorporated into Zigmond’s system, **it cannot be inferred from such a combination – nor would it have been obvious to one skilled in**

**the art – that specific slots would be sold at all, let alone specific slots in the included schedule or queue.** The Examiner is simply not entitled to assume that there would be any modification of Zigmond’s ad selection system to permit the sale of specific slots simply because Doherty’s schedule is now resident in Zigmond’s system.

In addition, the Examiner improperly parses the language of independent claim 1 in a piecemeal fashion. Specifically, the Examiner relies on Zigmond to teach “specific locations,” and on Doherty to teach the concept of the “purchase” of a slot. The Examiner reasons that, because each ad is assigned to a unique “specific slot” at the time of generating a queue, every advertiser has therefore purchased a “specific slot” by virtue of all of the slots being purchased by the advertisers to get their ads shown. Final Office Action at 4 – 6. However, such faulty logic results from an improper construction of the claim. That is, independent claim 1 recites, “selling specific queue slots...,” and not “selling slots in a queue that have advertisements designated at specific locations,” as the Examiner contends. Stated differently, the combination of Zigmond and Doherty perhaps only meets the language of independent claim 1 if the claim is read to improperly piece the individual words together in any order. Accordingly, Applicants respectfully submit that the combination of Zigmond and Doherty does not result in all features of the claims.

***Combination does not Teach or Suggest “insertion in accordance with the ordered list”***

The proposed combination of Zigmond and Doherty also does not teach or suggest that, “the sold specific queue slots at least partially determine the order of the ARLs in said ordered list.” Zigmond teaches that advertisement selection occurs at the time (or just prior to) insertion of the ad (i.e., “on the fly insertion). This determination – made by Zigmond’s system – is made based on ad selection criteria, including the content of the previous displayed ad (see, for example, Fig. 6 of Zigmond). If Doherty were to be combined with Zigmond as proposed by the Examiner, the alleged “queue” in Zigmond as modified by Doherty would not have the ability to insert ads “in accordance with the ordered list” (as claimed) because the queue (i.e., the ordered list) would not have been



created yet. Stated differently, in the proposed combination the selection of ads would occur after the previous ad is shown. As such, it would be impossible in the combination of Zigmond and Doherty for the sold “specific queue slots” to determine the ordered list (and thus the order of insertion) since the combination of Zigmond and Doherty necessarily requires waiting until after the previous ad to determine the next ad to be inserted. As such, the proposed combination does not teach or suggest the features of independent claim 1 as contended by the Examiner.

**ii. The Proposed Combination of Zigmond and Doherty is Improper.**

In KSR, the Court stated that it was “important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the [prior art] elements” in the manner claimed. *KSR Int’l Co. v. Teleflex Inc.* 127 S. Ct. 1727 (U.S. 2007). The Court noted, “[t]o facilitate review, this analysis should be made explicit.” See KSR. It is important to determine whether there was an “apparent reason to combine the known elements in the fashion claimed by the patent at issue.” See KSR. Therefore, the Examiner must identify the reason(s) why a person of ordinary skill in the art would have combined the prior art elements in the manner claimed. In view of KSR, the combination of Zigmond and Doherty is improper.

In addition, in dismissing Applicants’ arguments concerning the reasons to combine the references, Applicants respectfully submit that the Examiner has selectively considered the ad selection system taught by Zigmond and ignored the context in which it functions. The Examiner has seemingly ignored the “Basic Considerations Which Apply to Obviousness Rejections,” that instruct the Examiner that “[t]he references must be considered as a whole and must suggest the desirability and thus the obviousness of making the combination,” (see MPEP 2141). Further, MPEP 2141.02 instructs that “A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention.”

***Proposed Combination Renders Zigmond Inoperable***

If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. See *In re Ratti*, 270 F.2d 810, 123 U.S.P.Q. 349 (C.C.P.A. 1959); MPEP § 2143.01.

The inclusion of Doherty's schedule or queue in Zigmond would effectively change the mode of operation of Zigmond, rendering Zigmond inoperable. Modifying Zigmond's system with Doherty would force Zigmond to use an ad schedule instead of an on-demand ad-selection process as disclosed, fundamentally changing the manner and principle under which Zigmond operates: selecting the ad that is best suited for insertion at or near the time of insertion.

Steps 110 – 122 in Fig. 6 of Zigmond make it abundantly clear that Zigmond selects ads one at a time, just prior to insertion of that ad within the programming – not in advance. Such a process would not work with a schedule or queue. By definition as well as common sense, adding a pre-defined schedule (i.e., Doherty) to a system that is designed to operate “on-demand” (i.e., Zigmond) completely changes the purpose and manner of operation of the on-demand system. That is, it is impossible to have a system that utilizes both a pre-defined ad schedule and that selects ads on-demand. As such, Doherty's schedule is directly contrary to Zigmond's existing system and would render Zigmond inoperable.

***The Proposed Combination Lacks Common Sense***

Since Zigmond's system already has the ability to select the desired advertisement(s) “on demand”, there is simply no reason to add a schedule or queue of ads to Zigmond's system as proposed by the Examiner. The whole purpose of Zigmond's ad selection and insertion system is to be able to select the ad that is best suited for insertion at or near the time of insertion – not prepare a schedule of ads in

advance (i.e., Doherty). As such, one skilled in the art would not think to add a schedule that includes a priority selection system as taught by Doherty to Zigmond's on-demand selection system. Furthermore, Zigmond does not even contemplate the need for an ordered list or queue of advertisements generally. Due to these conflicting teachings, the combination of the Zigmond and Doherty is not a product of "common sense," as required by *KSR*.

In addition, Applicants respectfully submit that the Examiner has not established, nor is there, a reason or an objective teaching in Zigmond, Doherty or in the knowledge generally available to one of ordinary skill in the art that suggests the desirability of combining these references. The Examiner has merely suggested that one of ordinary skill in the art would combine Doherty with Zigmond to "better control the output and updating of advertisements," and "allowing the system provider additional revenue while allowing advertisers to control the display of their advertisement as desired" (Final Office Action, page 6). However, such a teaching is not found in any of the references. Merely pointing out the existence of particular teachings in one reference is not sufficient to establish that it would be desirable to combine that reference with another. The burden is on the Examiner to provide a convincing line of reasoning, based on knowledge generally available to one of ordinary skill in the art, established scientific principles or legal precedent, that there would have been a motivation to combine Zigmond and Doherty. *See* MPEP 2144.

### ***Zigmond Teaches Away from Doherty***

The Examiner alleges that "one [of] ordinary skill in the art would have been clearly motivated to combine Zigmond and Doherty's system, as both systems provide for targeted advertisements wherein advertisers may pay to control the presentation of their advertisement." Final Office Action at 6; *see also* Final Office Action at 11. The Examiner reasons that, "Doherty discloses a system wherein multiple advertisements are selected and ordered for display," and that one of ordinary skill in the art would have

found it obvious to combine Zigmond's system with this concept of Doherty. *Id.* However, Zigmond, on its face, disagrees with the Examiner's assertion. When evaluating the prior art, Zigmond considered a system wherein multiple pre-selected advertisements are to be displayed, ***but specifically did not follow this concept in his invention***. Figs. 2A and 2B of Zigmond (items 20 and 34, respectively) – identified by Zigmond as “prior art” – clearly show pre-selected multiple advertisements for insertion and display. *See also* Zigmond at column 2, line 44 – column 3, line 22. In discussing these figures, Zigmond states, “in Fig. 2A, a series of advertisements 20 are included at a predetermined time in programming feed 38.” Yet, with this knowledge of the prior art, Zigmond teaches a system that the Examiner acknowledges teaches, “selecting a single advertisement,” i.e., Zigmond's system of selecting a single, targeted advertisement for display based on selection criteria. Final Office Action at 5. It cannot be viewed that one of ordinary skill in the art would have found it obvious to add multiple pre-selected advertisements to Zigmond, when Zigmond itself had this knowledge and specifically opted for a system that is directed to “selecting a single advertisement” at the instant of insertion – not the selection of multiple ads from an ordered list or queue or predetermined insertion of ads.

The Examiner suggests that Zigmond in no way indicates the use of a list to pre-select multiple advertisements with respect to Figs. 2A and 2B, and therefore, does not teach away from Doherty's concept of a schedule. Final Office Action at 8. However, Applicants respectfully point out that whether Zigmond considered a “list” of ads is not the correct inquiry. Rather, Applicants note that Zigmond considered the use multiple pre-selected ads (i.e., the series of advertisements 20 and 34 in Figs. 2A and 2B, respectively). Zigmond expressly opts for a different concept: individual ad selection at the time of that insertion. Doherty relies on a schedule of ads – directly opposite to the methodology not chosen by Zigmond. Accordingly, Zigmond teaches away from the schedule concept of Doherty and is therefore not properly combinable with Doherty.

Accordingly, Applicants respectfully submit that the combination of Zigmond and Doherty is improper since such a combination would require a fundamental change in operation of Zigmond, the Examiner has not established that it would make sense to

combine them, and because Zigmond teaches away from Doherty. Even if properly combinable, which they are not, all features of the claims would still not be taught by the combination. Therefore, the Examiner has not met the burden of *prima facie* obviousness.

**iii. Applicants' Rebuttal Evidence Indicating Nonobviousness Should be Considered.**

If a *prima facie* case of obviousness has been established, when put forth by the Applicant, rebuttal evidence and/or argument regarding nonobviousness and supporting patentability must be considered. *In re John B. Sullivan and Findlay E. Russell*, 498 F.3d 1345, 1351 (Fed. Cir. 2007), *citing In re Soni*, 54 F.3d 746, 750 (Fed. Cir. 1995); *In re Sernaker*, 702 F.2d 989, 996 (Fed. Cir. 1983). The claimed invention cannot be held to have been obvious if competent evidence rebuts the *prima facie* case of obviousness. *Id* at 1353. *See* MPEP 2145.

Without conceding that the Examiner had established a *prima facie* case of obviousness, concurrent with Applicants' Amendment Accompanying RCE, filed October 26, 2007, Applicants submitted two separate Declarations under 37 C.F.R. §1.132 of Charles A. Eldering and Bernardo Paratore (the Eldering and Paratore Declarations, respectively). As set forth in MPEP 2145, "[O]ffice personnel should consider declarations from those skilled in the art praising the claimed invention and opining that the art teaches away from the invention, *citing In re Beattie*, 974 F.2d 1309, 1313 (Fed. Cir. 1992).

Consideration of rebuttal evidence and arguments requires Office personnel to weigh the proffered evidence and arguments. Office personnel should avoid giving evidence no weight, except in rare circumstances. MPEP 2145, *citing In re Hoeksema*, 399 F.2d 269 (CCPA 1968). However, in the Office Actions following submission of the Eldering and Paratore Declarations (i.e., the Non-Final Office Action dated December 28, 2007, and the Final Office Action dated August 28, 2008), the Examiner ignores both the substance and implications of such Declarations. Applicants repeatedly made reference

to the Eldering and Paratore Declarations, but the Examiner only referenced the Declarations in passing (and only with respect to the subject matter of independent claim 60) in the Non-Final Action of December, 2007. The Declarations are completely ignored in the Final Office Action.

***Combination Does not Render Claimed Subject Matter Obvious***

The Eldering and Paratore Declarations explain that the combination of Zigmond and Doherty, even if proper, fails to teach or suggest all of features of independent claim 1. Specifically, the combination of Zigmond and Doherty does not teach or suggest “selling specific queue slots, wherein the sold specific queue slots at least partially determine the order of the ARLs in said ordered list.” As discussed above, none of the applied references teaches or suggests the concept of selling specific slots generally or in a queue. Both the Eldering and Paratore Declarations draw well-founded conclusions to this effect. Eldering Declaration at #14, 15; Paratore Declaration at #8 – #11. Furthermore, the Eldering and Paratore Declarations explain that it would not have been obvious for one skilled in the art to result in the claimed element of selling specific queue slots in view of the proposed combination. Eldering Declaration at #8 – #12; Paratore Declaration at #12, 14. Finally, the Eldering and Paratore Declarations explain that the proposed combination would be inoperative and not have been made by one skilled in the art. Eldering Declaration at #17; Paratore Declaration at #13, 14.

***The Claimed Subject Matter Resulted from Long-Felt Need***

Rebuttal evidence may include evidence of "secondary considerations," such as "commercial success, long felt but unsolved needs, [and] failure of others." *Graham v. John Deere Co.*, 383 U.S. at 17, 148 USPQ at 467; see MPEP 2145. In addition, as set forth in MPEP §716.04, long-felt need and failure of others is a relevant factor in considering non-obviousness of a claim.

The Eldering Declaration explains that the claimed subject matter is not disclosed in the prior art and would not have been obvious to those skilled in the art, in part because ***the claimed subject matter resulted from long felt need*** and/or fulfills a need unmet by the prior art and the advertising industry at the time of the present application. Eldering Declaration at #6, 7, 14, 16, 17; *see* MPEP §716.04. Accordingly, Applicants respectfully submit that the claims are non-obvious over the proposed combination.

In view of the foregoing, independent claim 1 is believed to be allowable over the combination of Zigmond and Doherty.

For the same reasons discussed above with respect to independent claim 1, the combination of Zigmond and Doherty does not teach or suggest all of the elements of independent claims 79 and 97. Accordingly, independent claims 79 and 97 are believed to be allowable over Zigmond and Doherty, both individually and in combination. Dependent claims 2, 7, 8, 10, 12-18, 73 – 75, 80 – 94, 96 and 98 – 103 are allowable at least by their dependency on their respective independent claims 1, 79 and 97.

(b) Claims 60, 62 – 65, 68 – 72, 76 – 78, 95, and 104 – 105

The Examiner has not established a *prima facie* case of obviousness to support the rejection of claims 60, 62 – 65, 68 – 72, 76 – 78, 95, and 104 – 105 because (i) all features of the claims are not taught by the proposed combination; and (ii) the combination of references proposed by the Examiner is improper.

***Combination Does Not Teach or Suggest “selling specific slots based on a repetition rate”***

With respect to independent claim 60, Applicants respectfully submit that neither Zigmond nor Doherty teaches or suggests, “...identifying a repetition rate specified by an advertiser, wherein the repetition rate represents spacing between queue slots relative to

previous queue slots in the queue, and selling specific queue slots to the advertiser based at least partially on the specified repetition rate...” The Examiner relies on paragraph 50 and Fig. 3D of Doherty as teaching this feature. Final Office Action at 3, 25 – 27. However, the cited “ramp profile” in Doherty does not have any relationship to “selling specific queue slots to the advertiser based...on the specified repetition rate.” Rather, Fig. 3D of Doherty reflects an increasing ad priority to be used in conjunction with Doherty’s queue. The fact that the ramp profile in Doherty may be periodic in no way reflects that specific queue slots are sold to an advertiser based on a repetition rate of spacing between slots in the queue relative to other queue slots. First, as discussed above with respect to independent claims 1, 79 and 97, Doherty does not teach or suggest the sale of specific queue slots. Second, even if Doherty could be said to teach such a feature, a recurring ramp profile (e.g., Fig. 3D) at best represents the relative recurrence of a priority cycle – not spaces between specific queue slots. Thus, Doherty and Zigmond are both silent with respect to selling specific queue slots based on a repetition rate that represents spacing between slots in the queue, as recited in independent claim 60.

In addition, as discussed above with respect to independent claims 1, 79 and 97, Applicants respectfully submit that the combination of Zigmond and Doherty does not teach or suggest all of the features of independent claim 60.

Furthermore, for the same reasons discussed above with respect to independent claims 1, 79 and 97, Applicants respectfully submit that the combination of Zigmond and Doherty is improper.

Accordingly, the Examiner has not met the burden of *prima facie* obviousness with respect to independent claim 60, and such claim is believed to be allowable over the combination of Zigmond and Doherty. Dependent claims 62 – 65, 68 – 72, 76 – 78, 95, and 104 – 105 are allowable at least by their dependency on independent claim 60.



(2) Rejection under 35 U.S.C. §103(a) over Zigmond and Doherty in view of Bhagavath

(a) Claims 3 – 6 and 9

The Examiner has rejected claims 3-6 and 9 as being unpatentable over Zigmond, and Doherty, and further in view of U. S. Patent No. 6,505,169 to Bhagavath *et al.* (“Bhagavath”).

As discussed above with respect to independent claims 1, 79 and 97, independent claim 1 is believed to be allowable over the combination of Zigmond and Doherty. Applicants respectfully submit that Bhagavath does not teach or suggest any of the elements missing from such combination. Moreover, for the same reasons discussed above with respect to independent claims 1, 79 and 97, Applicants respectfully submit that the combination of Zigmond, Doherty and Bhagavath is improper. Thus, independent claim 1 is believed to be allowable over the combination of Zigmond, Doherty and Bhagavath. Accordingly, claims 3-6 and 9 are allowable at least by their dependency on independent claim 1.

***Conclusion***

For the reasons set forth above, Applicants submit that the rejections of claims 1-10, 12-18, 60, 62 – 65 and 68 – 105 are in error, and that the application, including claims 1-10, 12-18, 60, 62 – 65 and 68 – 105 is in condition for allowance. Accordingly, Applicants respectfully request that the Board reverse the Examiner’s rejections of claims 1-10, 12-18, 60, 62 – 65 and 68 – 105 and remand this application for issue.

**(H) CLAIMS APPENDIX**

1. A method of selectively inserting advertisements into a programming stream at different receiving nodes of a communications network, said method comprising:

(a) transmitting the programming stream from a central location to one or more receiving nodes;

(b) storing advertisements at a node of said network, each advertisement being previously matched to one or more subscribers associated with one of said receiving nodes;

(c) storing one or more queues, each of said queues corresponding to a subset of said receiving nodes, said queues comprising an ordered list of advertisement resource locators (ARLs) and a plurality of queue slots, each of said ARLs comprising data disclosing a location of a corresponding advertisement;

(d) selling specific queue slots, wherein the sold specific queue slots at least partially determine the order of the ARLs in said ordered list;

(e) determining, at each of said receiving nodes, one or more intervals in said programming stream within which advertisements may be inserted;

(f) responsive to said determination, retrieving from said queue corresponding to said receiving node one of said ARLs in accordance with said ordered list; and

(g) inserting said advertisement corresponding to said retrieved ARL into said programming stream at said receiving node within said determined one or more intervals.

2. The method of claim 1 wherein said programming stream includes indicators that identify the start of an avail in said programming stream for insertion of an

advertisement, wherein step (e) includes detecting said indicators and wherein step (g) includes inserting said advertisement into said avail.

3. The method of claim 2 wherein said indicators further identify a duration of said avail and said ARLs further identify a duration of said corresponding advertisements.

4. The method of claim 3 wherein said order of said ARLs in said queue is based at least partially on said duration of said advertisements relative to said duration of avails detected in said stream.

5. The method of claim 4 further comprising:

(h) determining at least one characteristic of a viewer of said television programming; and

(i) ordering said queue based at least partially on said at least one characteristic.

6. The method of claim 5 wherein said at least one characteristic of the viewer is based on the content of the programming stream prior to said interval.

7. The method of claim 1 wherein said queues are stored locally at said receiving nodes to which they correspond.

8. The method of claim 2 wherein step (a) includes receiving a plurality of channels of television programming and selecting one of said channels, wherein step (e) includes detecting said avails in said selected channel and wherein step (g) includes inserting said advertisements into said avails in said selected channel.

9. The method of claim 3 further comprising:

(h) receiving at said receiving node instructions dictating how to order said ARLs in said queue,

wherein step (c) includes ordering said queue in accordance with said instructions.

10. The method of claim 1 wherein step (b) includes storing said advertisements at said receiving node.

11. (canceled)

12. The method of claim 1 wherein step (d) includes selling the specific queue slots to advertisers.

13. The method of claim 1 wherein step (d) includes selling the specific queue slots based at least partially on a repetition rate within said queue of said sold slots.

14. The method of claim 13 wherein said repetition rate is non-linear.

15. The method of claim 1 further comprising:

(h) recording a portion of said stream for subsequent playback.

16. The method of claim 15 wherein step (g) includes inserting said advertisements into said stream as the stream is being recorded.

17. The method of claim 15 wherein step (g) includes inserting said advertisements into said stream when the stream is played back.

18. The method of claim 15 wherein step (g) includes inserting said advertisements into said stream between the time the stream is recorded and the time the stream is played back.

19-59. (canceled)

60. A method of inserting advertisements into a programming stream in a communications network, the method comprising:

(a) transmitting said programming stream from a central location to one or more receiving nodes;

(b) storing one or more queues at a node of the network, each queue associated with one or more subscribers, each of the queues comprising an ordered list of

advertisements and a plurality of queue slots, each advertisement being previously matched to one or more of the subscribers;

(c) identifying a repetition rate specified by an advertiser, wherein the repetition rate represents spacing between queue slots relative to previous queue slots in the queue, and selling specific queue slots to the advertiser based at least partially on the specified repetition rate, wherein the sold specific queue slots at least partially determine the ordered list of the advertisements within the queues;

(d) detecting one or more intervals in said programming stream within which advertisements may be inserted; and

(e) inserting advertisements from the queues into said programming stream within said detected one or more intervals, the advertisements being inserted in accordance with the ordered list.

61. (canceled)

62. The method of claim 60 wherein the order of the advertisements in the queues is independent of the substance of the programming stream.

63. The method of claim 60 wherein each of the one or more queues is associated with a channel in the programming stream.

64. The method of claim 60 wherein step (a) includes transmitting a plurality of channels within the programming stream and selecting one of said channels, and wherein step (e)

includes inserting the advertisements from a queue associated with the selected channel into the detected intervals in the selected channel.

65. The method of claim 60 wherein the queues are stored at the subscriber node.

66 – 67. (cancelled)

68. The method of claim 60 wherein the repetition rate is non-linear.

69. The method of claim 60 further comprising:

(f) recording a portion of said programming stream for subsequent playback.

70. The method of claim 69 wherein the advertisements are inserted into said programming stream as the stream is being recorded.

71. The method of claim 69 wherein the advertisements are inserted into said programming stream when the stream is played back.

72. The method of claim 69 wherein the advertisements are inserted into said programming stream between the time the stream is recorded and the time the stream is played back.

73. The method of claim 1 wherein the retrieved ARL is not dependent on a selection of a corresponding advertisement.

74. The method of claim 1 wherein the ARLs are not linked to the determined interval until the ARL is retrieved from the queue.

75. The method of claim 1 wherein the order of the ARLs in the ordered list is independent of the substance of the advertisements corresponding to the ARLs in the queue.

76. The method of claim 60 wherein the inserted advertisement is not dependent on a selection of that advertisement.

77. The method of claim 60 wherein the advertisements are not linked to the detected one or more intervals until the advertisement is inserted into the detected intervals.

78. The method of claim 60 wherein the order of the advertisements in the ordered list is independent of the substance of the advertisements in the queue.

79. A method of inserting advertisements into a programming stream in a communications network, the method comprising:



(a) transmitting said programming stream from a central location to one or more receiving nodes;

(b) storing said programming stream at the one or more receiving nodes;

(c) storing one or more queues at a node of the network, each queue associated with one or more subscribers, each of the queues comprising an ordered list of advertisements and a plurality of queue slots, each advertisement being previously matched to one or more of the subscribers;

(d) selling specific queue slots, wherein the sold specific queue slots at least partially determine the ordered list of the advertisements within the queues;

(e) retrieving the stored programming stream from the one or more receiving nodes to create a retrieved programming stream;

(f) detecting one or more intervals in said retrieved programming stream within which advertisements may be inserted; and

(g) inserting advertisements from the queues into said retrieved programming stream within said detected one or more intervals, the advertisements being inserted in accordance with the ordered list.

80. The method of claim 79 wherein the order of the advertisements in the queues is independent of the substance of the programming stream.

81. The method of claim 79 wherein each of the one or more queues is associated with a channel in the programming stream.

82. The method of claim 79 wherein step (a) includes transmitting a plurality of channels within the programming stream and selecting one of said channels, and wherein step (g) includes inserting the advertisements from a queue associated with the selected channel into the detected intervals in the selected channel.

83. The method of claim 79 wherein the queues are stored at the subscriber node.

84. The method of claim 79 wherein the specific queue slots are sold to advertisers.

85. The method of claim 79 wherein the specific queue slots are sold based at least partially on a repetition rate within the queue of the sold specific queue slots.

86. The method of claim 85 wherein the repetition rate is non-linear.

87. The method of claim 79 further comprising:

(h) recording a portion of said programming stream for subsequent playback.

88. The method of claim 87 wherein the advertisements are inserted into said programming stream as the stream is being recorded.

89. The method of claim 87 wherein the advertisements are inserted into said programming stream when the stream is played back.

90. The method of claim 87 wherein the advertisements are inserted into said programming stream between the time the stream is recorded and the time the stream is played back.

91. The method of claim 79 wherein the inserted advertisement is not dependent on a selection of that advertisement.

92. The method of claim 79 wherein the advertisements are not linked to the detected one or more intervals until the advertisement is inserted into the detected intervals.

93. The method of claim 79 wherein the order of the advertisements in the ordered list is independent of the substance of the advertisements in the queue.

94. The method of claim 4, wherein the order of the ARLs in said ordered list is independent of the timing of the determined one or more intervals.

95. The method of claim 60, wherein the order of the advertisements in said ordered list is independent of the timing of the detected intervals.

96. The method of claim 79, wherein the order of the advertisements in said ordered list is independent of the timing of the detected intervals.

97. A method of inserting advertisements into a programming stream in a communications network, the method comprising:

(a) transmitting said programming stream from a central location to one or more receiving nodes;

(b) storing one or more queues at a node of the network, each queue associated with one or more subscribers and comprising a plurality of queue locations forming an ordered list of advertisements, each advertisement being previously matched to one or more of the subscribers;

(c) selling one or more specific individual queue locations, wherein the sold specific individual queue locations at least partially determine the ordered list of the advertisements within the queues;

(d) detecting one or more intervals in said programming stream within which advertisements may be inserted; and

(e) inserting advertisements from the queues into said programming stream within said detected one or more intervals, the advertisements being inserted in accordance with the ordered list.

98. The method of claim 97, wherein the order of the advertisements in the queues is independent of the substance of the programming stream.

99. The method of claim 97, wherein each of the one or more queues is associated with a specific channel in the programming stream.

100. The method of claim 97, wherein step (a) includes transmitting a plurality of channels within the programming stream and selecting one of said channels, and wherein step (e) includes inserting the advertisements from a queue associated with the selected channel into the detected intervals in the selected channel.

101. The method of claim 97, wherein the specific individual queue locations are sold to advertisers.

102. The method of claim 97, wherein the specific individual queue locations are sold based at least partially on a repetition rate within the queue of the sold individual queue locations.

103. The method of claim 97, wherein the order of the advertisements in the ordered list is independent of the substance of the advertisements in the queue.

104. The method of claim 60, wherein a purchaser of the sold specific queue slots places his advertisement in a particular one of the sold queue slots.

105. The method of claim 60, wherein the each of the sold specific queue slots has a position within the queue known to the purchaser of the slot at the time of purchase.

**(I) EVIDENCE APPENDIX**

None.

(J) RELATED PROCEEDINGS APPENDIX

None.

Respectfully submitted,

Date: 6/16/09

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